

FREDERICK COUNTY



Selection of Focus Area

The module topic “Developing a Support System to Improve Dental Health of Frederick Country Children” was selected as a result of discussion at the Healthy People 2010 Planning Meeting. The members of the Frederick County workgroup determined that the improvement of children’s dental health was one of the most immediate problems facing the County. Other critical problems include access to care, breast and cervical cancer, colo-rectal cancer, lung cancer, prostate cancer, mental health, substance abuse, and improvement of the public health infrastructure. All these problems continue to be the focus of extensive efforts in Frederick.

DEMOGRAPHIC OVERVIEW

Estimated Population, by Race – 1998

Total	186,780
White	91.1%
Other	8.9%

Estimated Population, by Age – 1998

Under 1	2,660	18-44	79,950
1-4	10,260	45-64	38,240
5-17	38,050	65+	17,620

All causes Mortality Rate (age-adjusted, per 100,000 population) 1996-1998 437.1

Infant Mortality Rate 1995-1999 5.3

Estimated Mean Household Income – 1999 \$74,000

Estimated Median Household Income – 1999 \$63,900

Civilian Unemployment Rate, Annual Average – 1999 2.2

Labor force (Top 4) – 1995

Services	25,400	Government (Federal, Military)	11,800
Retail Trade	16,300	Construction	8,800

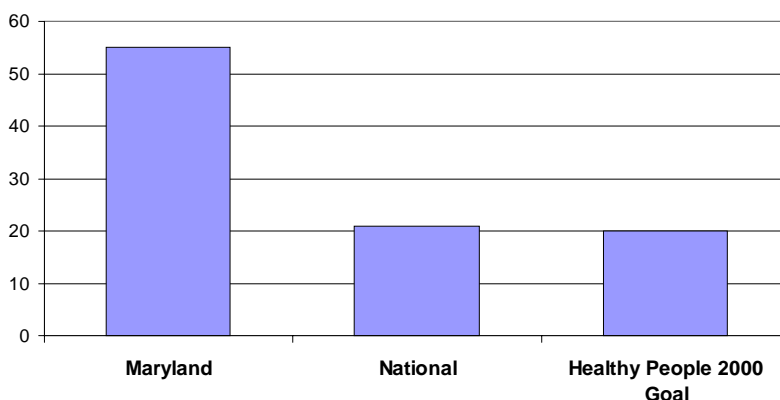
Sources: Maryland Vital Statistics, 1999
Maryland Department of Planning, 1995, 1998, 1999

Developing a Support System to Improve the Dental Health of Frederick County Children

Problem

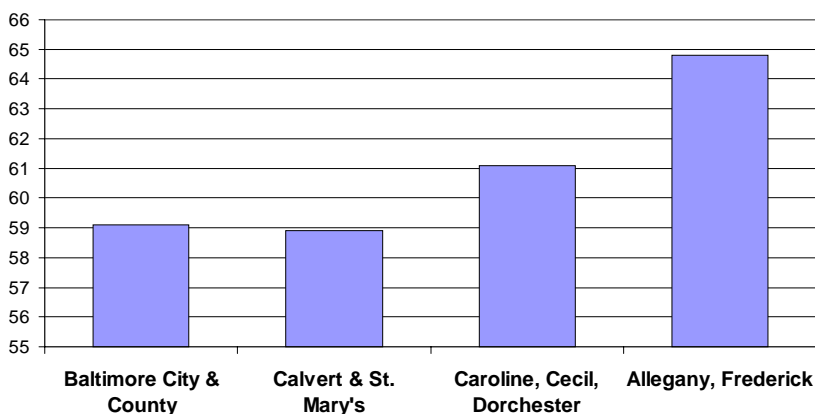
Dental caries are the most prevalent chronic childhood disease. A Survey of the Oral Health Status of Maryland School Children, 1994-1995, indicated that children living in non-fluoridated communities have nearly 50% more decayed teeth than children living with fluoridated water. The survey of Maryland school children indicated that children in Western Maryland, including the Frederick area, have more decay than children in Baltimore City and Southern Maryland. School-age children averaged nearly four cavities each, and 60% had at least some decay. Dental care access and utilization by low-income children are major problems in Frederick County, as private dentists participate only minimally in the *HealthChoice* reduced-fee insurance program. The Frederick County Health Department (FCHD) Dental Clinic sees an average of 178 children per month and about 2,136 per year. Use of preventive services from the FCHD Dental Clinic help children avoid the infectious process of cavities that continues throughout life. Poor dental health impacts many aspects of life including nutrition, growth patterns related to poor oral feeding, and even unemployment due to poor appearance as a result of tooth loss. Prevention of dental caries is better than treatment.

Percent of Children With Untreated Dental Caries in Maryland, the U.S., and the Healthy People 2000 Goal, 1994-1995



Source: Survey of the Oral Health Status of Maryland School Children, 1994-1995

Percent of Children With Caries by Region in Maryland, 1994-1995



Source: Survey of the Oral Health Status of Maryland School Children, 1994-1995

Determinants

Dental caries continue to be a major health problem for children in Maryland. The Survey of the Oral Health Status of Maryland School Children, 1994-1995, included over 192,000 children in four regions of the State, including Frederick County. The study revealed Maryland's current rate of decay, children at highest risk, the relationship of care to type of reimbursement, the impact of living in areas with non-fluoridated water and/or drinking only bottled water, and sealant use.

While children enrolled in the Maryland Children's Health Program (MCHP) are covered for dental care, only 33% of those children saw a dentist every six months, compared to a State average of 48% of children with other insurance. These vulnerable children of low-income families suffer from frequent, urgent oral problems with inadequate dental care. In 1995, fewer than one in five of Medicaid-eligible children received preventive dental services. The Survey of the Oral Health Status of Maryland School Children, 1994-1995, identified that children on Medical Assistance had a decay rate of 2.71 teeth to 2.04 teeth of children with private dental insurance. Additionally, 70% of children on Medical Assistance had untreated decay, versus 50% in children with private insurance or fee for service. In Maryland, young children of low-income families are 75% more likely to have untreated cavities than are children 17 and older. In 1995, only 40% of the children in Maryland were cavity-free.

The Survey of the Oral Health Status of Maryland School Children, 1994-1995, also identified differences in the percentages of tooth decay between the white and non-white populations. The non-white population had 61.3% caries while the white population had 59.8% caries. This means that specific attention should be paid to the non-white population in the provision of preventive care. Frederick County has the highest percentage of caries frequency in the State. However, as the number of children in Frederick with MCHP insurance steadily increases, the children will probably be treated by the Frederick County Health Department Dental Clinic. Recent statistics for the Dental Clinic indicate the rate for children without dental insurance whose last visit was for a check-up was two-thirds the rate for children with insurance.

Fluoridation of Water Supplies/Sealants

Fluoride, a natural mineral, has been shown to reduce cavities in both children and adults by making the tooth structure stronger and more resistant to acid attacks. As a result, the rate of tooth decay increases for children living in areas without fluoridated water. Three Frederick communities have fluoridated water, which means 73% of Frederick children have fluoride in their public water supply. The mean decay experience in children residing in non-fluoridated communities is 2.97. A bigger issue in Frederick County is that 61% of the people live in areas without public water supplies and must rely on private wells. While fluoride is the most effective way to prevent dental caries in all children, the use of sealants must be considered for the children living in Frederick County. Sealant applied to the surfaces of the teeth reduces the risk of tooth decay. The Survey of the Oral Health Status of Maryland School Children, 1994-1995, described white children as being three times as likely to have sealants as non-white children. Western Maryland was reported to have a 27% sealant utilization rate. This figure indicates that a sealant program would be an important part of Frederick County's dental plan particularly for minority children and for all children living in areas that cannot be fluoridated.

Objective 1 - Increase service provision for children of the medical assistance population ages three through 19 from 17% to 70% by the year 2010.

Action Steps

- ⇒ Partner with Head Start; Women, Infants and Children (WIC); and the Frederick County School Health Program by conducting annual staff training to raise awareness and increase outreach to the community regarding dental clinic services.
- ⇒ Add new staff positions in order to increase the service level at the Frederick County dental clinic.

Objective 2 - Reduce by 20% the proportion of children and adolescents with untreated dental decay by 2010.

Action Steps

- ⇒ By 2005, obtain data on the number of children, kindergarten through 12th grade, with untreated dental decay, through participation in the University of Maryland Children's Dental Health Survey, and begin to track dental screenings thorough the School Health Program.
- ⇒ By 2010, increase by two the number of communities who have optimal fluoride in the water using the State and local funding and education resources.
- ⇒ By 2005, increase by 20% the number of dental health education programs given in schools and in the community.

Objective 3 - By 2010, increase by 20% the proportion of children who have received dental sealants on their molar teeth.

Action Steps

- ⇒ By 2005, in conjunction with the Public Health Committee of the Frederick County Dental Society, conduct surveys of sealant prevalence in non-fluoridated schools.
- ⇒ By 2005, coordinate efforts with the local dental society public health committee to reach children in non-fluoridated areas through a school-based sealant program.
- ⇒ By 2005, develop software to track dental health issues identified in the school system, including the number of dental screenings returned to the school system, and for supporting the school sealant program.

References

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Partners

Frederick County Health Department • Frederick County Dental Society

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